

**BOARD OF SUPERVISORS
REGULAR MEETING
ZONING ORDINANCE TEXT AMENDMENT**

**2008 NOVEMBER 18
PUBLIC HEARING**

**The Clarke County Planning Commission recommends the amendment of the County Zoning Ord.: Sections 3-A-1-a, 3-A-2-a, 3-A-3-a, 3-A-12-a, and 3-A-13-a, Permitted and Special Uses and Structures in the AOC, FOC, Rural Residential, Neighborhood Commercial, and Highway Commercial Zoning Districts so as to add Small Wind Turbines that are 100 feet or less in height as an Accessory Use and such turbines taller than 100 feet as a Special Use;
Section 9-B-2, Definitions, so as to add the definitions for Small Wind Energy Systems and Wind Turbines. TA-08-07**

No additional comments.

RECOMMENDATION

Approval of the proposed text amendments.

BOS Comments – Oct 21

After a public hearing at which no one spoke, the Planning Commission unanimously (absent: Batterton, Dunning) voted to recommend approval to the Board of Supervisors the proposed amendments with an additional limitation that not more than two foot turbines that are less than 100 feet in height can be placed on a property as accessory use, three or more would be allowed as a special use.

RECOMMENDATION

Set public hearing on the proposed amendments for the next regular meeting of the Board on November 18.

PC Comments – Oct 5

No additional comments.

RECOMMENDATION

Recommend approval to the Board of Supervisors the proposed amendments to the Zoning Ordinance.

PC Comments – Sept 5

The Planning Commission Chair, Bev McKay, appointed a committee to study wind energy systems at the 2008 April 4 Planning Commission meeting. The committee (Kathy Smart, George Ohrstrom, and Pete Dunning) was tasked with learning about wind energy systems and determining whether an ordinance should be developed to regulate the installation of such systems.

The initial meeting, on May 6th, focused on looking at basic information about what wind turbines are and what other communities are doing in terms of regulations. A draft ordinance was presented based primarily on an ordinance developed in Rockingham County. The committee discussed various issues and determined that the main questions were 1) should the turbine height be limited; 2) should there be a setback from property lines; and 3) should there be a minimum size parcel where these systems could be located. The committee met with renewable energy distributor Charles Bigelow, of Light Speed Power, Inc, in Boyce. He described typical installations of a residential wind turbine and took the committee to two sites with installed systems. In addition the committee attended a wind energy conference at James Madison University June 18th & 19th.

Based on the information the committee compiled, it was determined that the ordinance should limit turbine use to small units for on-site power generation. Future uses could include small community systems, however the committee learned that Clarke County has limited wind resources for use in commercial power generation and that the sites for commercial power generation need to be adjacent to major transmission lines. The height limit of 100 feet was determined to be the optimum for this area to maximize wind energy production; shorter units may not produce adequate power to be economically viable. Rather than require a minimum lot size for turbine installation, setbacks equal to the height of the structure were agreed to be reasonable. Based on the site visits, the committee found the turbines did not detract from the aesthetics of a property.

RECOMMENDATION

Set public hearing on the proposed amendment for the October 3rd Planning Commission meeting.

Clarke County Board of Supervisors

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ORDINANCE **(Approved 11/18/08)**

At a regular meeting of the Board of Supervisors of Clarke County, Virginia, held at the Circuit Courthouse of said County on 11/18/08, at 6:30 p.m. On motion by Supervisor Dunning, the Board of Supervisors approved the proposed Text Amendment of the Zoning Ordinance.

WHEREAS, the Clarke County Zoning Ordinance is established to protect the health, safety, and welfare of the community;

WHEREAS, allowing alternative forms of energy for on-site power generation provides options for property owners faced with increasing energy costs

WHEREAS, energy derived from Small Wind Energy turbines is non-polluting and is allow the provision of power independent of other energy sources;

NOW THEREFORE BE IT ORDAINED THAT Clarke County Zoning Ordinance Sections 3-A-1-a, 3-A-2-a, 3-A-3-a, 3-A-12-a, and 3-A-13-a, Permitted and Special Uses and Structures in the AOC, FOC, Rural Residential, Neighborhood Commercial, and Highway Commercial Zoning Districts are amended so as to add Small Wind Turbines that are 100 feet or less in height as an Accessory Use and such turbines taller than 100 feet as a Special Use and Section 9-B-2, Definitions, is amended to add the definitions for Small Wind Energy Systems and Wind Turbines of the County Zoning Ordinance.

ATTEST:

David L. Ash, County Administrator

TA-08-07

ZONING ORDINANCE TEXT AMENDMENT

Text to added showed ***in bold Italics***Text to be deleted showed ~~struck through~~

3 DISTRICT REGULATIONS

3-A SCHEDULE OF DISTRICT REGULATIONS

3-A-1 Agricultural-Open Space-Conservation District – AOC

3-A-1-a Permitted Uses and Structures

2. Accessory Uses and Structures

Uses and structures that are customarily accessory and clearly incidental and subordinate to permitted uses and structure, including:

*. ***Not more than two structures 100 feet in height or less for a small wind turbine generating electrical energy primarily for on-site usage***

3. Special Uses and Structures

*. ***Three or more structures 100 feet in height or less for a small wind turbine generating electrical energy primarily for on-site usage***

*. ***Structure(s) greater than 100 feet in height for a small wind turbine generating electrical energy primarily for on-site usage***

3-A-2 Forestal-Open Space-Conservation District – FOC

3-A-2-a Permitted Uses and Structures

2. Accessory Uses and Structures

Uses and structures that are customarily accessory and clearly incidental and subordinate to permitted uses and structure, including:

*. ***Not more than two structures 100 feet in height or less for a small wind turbine generating electrical energy primarily for on-site usage***

4. Special Uses and Structures

*. ***Three or more structures 100 feet in height or less for a small wind turbine generating electrical energy primarily for on-site usage***

*. ***Structure(s) greater than 100 feet in height for a small wind turbine generating electrical energy primarily for on-site usage***

3-A-3 Rural Residential District – RR

3-A-3-a Permitted Uses and Structures

2. Accessory Uses and Structures

Uses and structures that are customarily accessory and clearly incidental and subordinate to permitted uses and structure, including:

*. ***Not more than two structures 100 feet in height or less for a small wind turbine generating electrical energy primarily for on-site usage***

5. Special Uses and Structures

*. ***Three or more structures 100 feet in height or less for a small wind turbine generating electrical energy primarily for on-site usage***

*. ***Structure(s) greater than 100 feet in height for a small wind turbine generating electrical energy primarily for on-site usage***

3-A-12 Neighborhood Commercial District – CN

3-A-12-a Permitted Uses and Structures

2. Accessory Uses and Structures

Uses and structures that are customarily accessory and clearly incidental and subordinate to permitted uses and structure, including:

- *. *Not more than two structures 100 feet in height or less for a small wind turbine generating electrical energy primarily for on-site usage*
- 6. Special Uses and Structures
 - *. *Three or more structures 100 feet in height or less for a small wind turbine generating electrical energy primarily for on-site usage*
 - *. *Structure(s) greater than 100 feet in height for a small wind turbine generating electrical energy primarily for on-site usage*

3-A-13
3-A-13-a

Highway Commercial District – CH

Permitted Uses and Structures

- 2. Accessory Uses and Structures

Uses and structures that are customarily accessory and clearly incidental and subordinate to permitted uses and structure, including:

 - *. *Not more than two structures 100 feet in height or less for a small wind turbine generating electrical energy primarily for on-site usage*
- 7. Special Uses and Structures
 - *. *Three or more structures 100 feet in height or less for a small wind turbine generating electrical energy primarily for on-site usage*
 - *. *Structure(s) greater than 100 feet in height for a small wind turbine generating electrical energy primarily for on-site usage*

3-C
3-C-2

SUPPLEMENTARY REGULATIONS

Uses in Various Districts

Small Wind Energy Systems

1. *Small wind energy systems shall be used solely for the purpose of generating electricity, pumping water, or performing work that may be connected to the utility grid pursuant to the Virginia's net metering laws (Code of Virginia (COV) § 56-594), serving as an independent source of energy, or serving in a hybrid system.*
2. ***Siting and Design Requirements:***
 - a. *Small wind energy towers shall maintain a galvanized steel finish or painted to conform the tower to the surrounding environment and architecture.*
 - b. *No tower should have any sign, writing, or picture that may be construed as advertising or be used for any purpose other than support of the wind turbine and associated equipment.*
 - c. *Small wind energy systems shall not exceed sixty (60) decibels, as measured at the closest property line. The level, however, may be exceeded during short-term events such as utility outages and/or severe windstorms.*
 - d. *The proposed height of the small wind energy system tower shall not exceed the height recommended by the manufacturer or distributor of the system.*
 - e. *If the small wind system is to be connected to the electricity grid, written evidence shall be provided from the electric utility provider that the provider of electric utility service to the site has been informed of the intent to install an interconnected customer-owned electricity generator.*
 - f. *The minimum distance between the ground and any protruding blades used on a small wind-energy system shall be fifteen (15) feet, as measured at the lowest point of the arc of the blades. The lowest point of the arc of*

the blade shall also be ten (10) feet above the height of any structure within one hundred fifty (150) feet of the base. The supporting tower shall also be enclosed with a six-foot tall fence or the base of the tower shall not be climbable for a distance of twelve (12) feet.

- g. Liability insurance shall be provided, whether or not the applicant is participating in the net metering program, meeting the insurance coverage requirements set forth in 20 VAC 5-315-60.*
 - h. The small wind energy system generators and alternators should be constructed so as to prevent the emission of radio and television signals and shall comply with the provisions of Section 47 of the Federal Code of Regulations, Part 15 and subsequent revisions governing said emissions.*
 - i. Wind energy system shall be set back a distance at least equal to the height of the tower plus the blade length from all adjacent property lines. Additionally, no portion of the small wind energy system, including guy wire anchors, may extend closer than ten (10) feet to the property line.*
- 3. Code Requirements:**
- a. Compliance with Uniform Statewide Building Code: Building permit applications for wind energy systems shall be accompanied by standard drawings of the wind turbine structure, including the tower, base, and footings. An engineering analysis of the tower showing compliance with the Uniform Statewide Building Code and certified by a licensed professional engineer shall also be submitted.*
 - b. Compliance with National Electric Code: Building permit applications for wind energy systems shall be accompanied by a line drawing of the electrical components in sufficient detail to allow for a determination that the manner of installation conforms to the National Electrical Code.*
 - c. Compliance with regulations governing energy net metering: Wind energy systems connected to the utility grid must comply with the Virginia Administrative Code 20 VAC 5-315: Regulations Governing Energy Net Metering.*
- 4. Any wind energy system found to be unsafe by the Clarke County Building Official shall be repaired by the owner to meet federal, state and local safety standards or removed within six (6) months. Any wind energy system that is not operated for a continuous period of twenty-four (24) months shall be considered abandoned and the owner of the system shall remove the turbine within ninety (90) days of receipt of notice from the county instructing the owner to remove the abandoned wind energy system.**

9-B DEFINITIONS

- 9-B-XX** *SMALL WIND ENERGY SYSTEM: A wind energy conversion system, less than 100 kW, consisting of a wind turbine, tower, base and/or associated testing, control, or conversion electronics.*
- 9-B-XX** *WIND TURBINE TOTAL HEIGHT: The distance measured from ground level to the blade extended at its highest point.*
- 9-B-XX** *WIND TURBINE: The parts of the wind system including the blades, generator and tail.*